

1 1. A ball sizer for a paint-ball gun, comprising:
2 a bore, the bore having an entrance;
3 the entrance to the bore having a chamfer; and,
4 the chamfer having a smooth transition from the entrance to the bore of the sizer.

1 2. The ball sizer of claim 1 where the smooth transition of the chamfer defines a
2 section of a parabola.

1 3. The ball sizer of claim 1 where the smooth transition of the chamfer defines a
2 section of a circle.

1 4. The ball sizer of claim 1 where the smooth transition of the chamfer comprises a
2 first part defining a straight line; and a second part defining a curve.

1 5. The ball sizer of claim 4 where the curve of the second part defines a section of a
2 parabola.

1 6. The ball sizer of claim 4 where the curve of the second part defines a section of a
2 circle.

1 7. A ball sizer for a paint-ball gun, comprising:
2 a bore, the bore having an exit;

- 3 the exit to the bore having a chamfer; and,
- 4 the chamfer having a smooth transition from the bore to the exit of the sizer.

1 8. The ball sizer of claim 7 where the smooth transition of the chamfer defines a
2 section of a parabola.

1 9. The ball sizer of claim 7 where the smooth transition of the chamfer defines a
2 section of a circle.

1 10. The ball sizer of claim 7 where the smooth transition of the chamfer comprises a
2 first part defining a straight line; and a second part defining a curve.

1 11. The ball sizer of claim 10 where the curve of the second part defines a section of a
2 parabola.

1 12. The ball sizer of claim 10 where the curve of the second part defines a section of a
2 circle.

1 13. A barrel for a paint-ball gun, comprising:
2 a bore, the bore having an entrance;
3 the entrance to the bore having a chamfer; and,
4 the chamfer having a smooth transition from the entrance to the bore of the sizer.

1 14. The barrel of claim 13 where the smooth transition of the chamfer defines a section
2 of a parabola.

1 15. The barrel of claim 13 where the smooth transition of the chamfer defines a section
2 of a circle.

1 16. The barrel of claim 13 where the smooth transition of the chamfer comprises a first
2 part defining a straight line; and a second part defining a curve.

1 17. The barrel of claim 16 where the curve of the second part defines a section of a
2 parabola.

1 18. The barrel of claim 16 where the curve of the second part defines a section of a
2 circle.

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4 19. The barrel of claim 13, where the barrel has rifling.

1 20. A barrel for a paint-ball gun, comprising:
2 a muzzle;
3 a bore, the bore having an exit at the muzzle;
4 the muzzle having a chamfer; and,
5 the chamfer having a smooth transition from the entrance to the bore of the sizer.

1 21. The barrel of claim 20, where the muzzle has reverse ports.